Remarks

At present applicants' claims 1-7 stand rejected under 35 U.S.C. § 103 based upon the patent to Vaman et al. (US Patent Number 6,011,780 issued January 4, 2000) in view of the patent to Miyagi (US Patent Number 5,461,607 issued October 24, 1995). In light of the modifications made to applicants' claims and the remarks presented below, this rejection is respectfully traversed. Accordingly, claims 1-7 remain pending in the present application.

While the art cited by the Examiner and applicants' specification both describe the environment as an interconnected network of data processing nodes, there are both subtle and not so subtle differences between the structure of the two environments. In particular, it is noted that in the art cited by the Examiner, particularly the patent to Vaman et al., the nodes therein are essentially intermediate nodes in a chain which seeks to find alternate communication paths for transmitting and receiving ATM cells. In this regard, the acronym "ATM" refers, not to a banking device, but rather to an information transmission and data packaging protocol. It is the primary object of the patent to Vaman et al. to find alternative paths for transmission should one of the paths or nodes in a path be found to be nonfunctioning. Both the patent to Vaman et al. and the patent to Miyagi et al. contemplate networks of data processing nodes whose only connection is a single communications path. That is, between any two nodes, there is only one signaling path.

In contrast, it is seen that in applicants' claimed invention particularly as amended herein, specific recitation is made to the fact that the previously referred to heartbeat mechanism is in fact a separate signaling path that exists in the environment contemplated by the present applicants. Support for this is found in paragraph 25 on page 7 of applicants' specification where it is indicated that the heartbeat mechanism notifies nodes A and C that node D is now back online. Accordingly, for this reason alone it is seen that applicants' claims, particularly as

amended, recite the existence of a claim element which is not taught, disclosed or suggested by either of the two cited patents. Contrary to the Examiner's assertion with respect to the contents of column 12, lines 9-17, of the patent to Vaman et al., there is in fact no mention whatsoever therein of anything that could be remotely described as a heartbeat mechanism. Accordingly, it is seen that one of ordinary skill in the art having the cited patents before them would not employ any method in which there is provided a separate signaling path which is used by a heartbeat mechanism for determining liveness. Thus, for this reason alone, it is respectfully requested that the rejection of applicants' claims under 35 U.S.C. § 103 be withdrawn.

An additional significant difference between that which is claimed and that which is taught by the art cited is the complete absence of the concept of an instance identifier. Ironically, and confusingly, the Examiner has also cited the same column 12, lines 9-17, of the patent to Vaman et al. as a basis for an assertion that Vaman et al. teach the utilization of an instance identifier. The only possible reference in this portion of the cited patent that could possibly be construed as an instance identifier is the reference to "an alarm indication signal". This alarm indication signal is described as having a function type, a message type and failure location indicators which point to virtual paths and to types of failure. Nowhere is there any indication at all that this is or contains an instance identifier. In other words, there is no teaching, disclosure or suggestion whatsoever in this portion of the patent to Vaman et al. that is directed to a teaching that there is any variable which provides an indication that a failure event is occurring for the first, second, third or fourth time. There is no indication whatsoever that Vaman et al. teach that it is necessary, useful or desirable to keep track of this information. Furthermore, there is no teaching, disclosure or suggestion in the patent to Vaman et al. relevant to anything that could be remotely described as an epoch number. Furthermore, and just as importantly, this so-called alarm indication signal (AIS) is transmitted over the normal communication paths between the nodes in Vaman et al. Since it is seen that applicants' claims all refer to the use of an instance identifier and since this concept is eminently absent from the teachings found in Vaman et al. and the patent to Miyagi et al., it is seen that those of ordinary skill in the art would

have no way whatsoever of devising a method which would lead to the inclusion of such a claim element. Accordingly, it is therefore seen that, for this reason as well, applicants' claims 1-7 are patentable over the art cited.

For all of the above reasons, it is seen that the rejection of applicants' claims 1-7 under 35 U.S.C. § 103 cannot be sustained. It is therefore respectfully requested that this rejection be withdrawn. The Examiner's comments with respect to applicants' dependent claims are moot in light of the fact that the cited art is not sufficient to support a rejection of applicants' broader independent claims.

As a further clarifying point it is noted that applicants' claims have been amended herein to reflect the fact that, in applicants' contemplated invention, all of the nodes that participate in the invention (which may be less than all of the nodes in the system) are considered to be directly connected with one another, that is, all of the nodes can communicate with all of the other nodes in the standard full operating modes. Support for this is clearly seen from applicants' figure. This further distinguishes applicants' claimed invention from the art cited.

It is noted that the present response is being made as of right. It is also noted that the present response does not require the payment of any additional fees.

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. No amendment made was for the purpose of narrowing the scope of any claim, unless applicants have argued herein that such amendment was made to distinguish over a particular cited document or combination of documents.

Accordingly, it is now seen that all of the applicants' claims are in condition for allowance. Therefore, early notification of the allowability of applicants' claims is earnestly solicited. Furthermore, if there are any other matters which the Examiner feels could be

expeditiously considered and which would forward the prosecution of the instant application, applicants' attorney wishes to indicate his willingness to engage in any telephonic communication in furtherance of this objective. Accordingly, applicants' attorney may be reached for this purpose at the numbers provided below.

Respectfully Submitted,

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Date

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